



E²HR actuator

Electro-Hydraulic Rotary Valve Actuator

Compact Self-Contained Electro-Hydraulic Actuator

- Torque up to 300,000 in-lbs
- On/Off or Modulating service
- Fail Last, Fail Close, Fail Open
- Speed 20 Degrees/Sec

E²HR SERIES Design



Specifications

- Torque up to 300,000 in-lbs
- Rotation: 90 degrees +/- 5 degrees
- ESD Capable
- 100% Duty Cycle
- Very Low Power Consumption
- Power On Demand – Lock in Place
- Tight Shutoff
- On/Off or Modulating service
- Fail Last, Fail Close, Fail Open
- Speed 20 Degrees/Sec
- Hydraulic Manual Override

Compact: All in one design. No need for a separate hydraulic power unit and hoses.

Simple: Large, easy to use touch screen for quick setup and operation.

Data logging: System records position and time data for valve performance analysis.

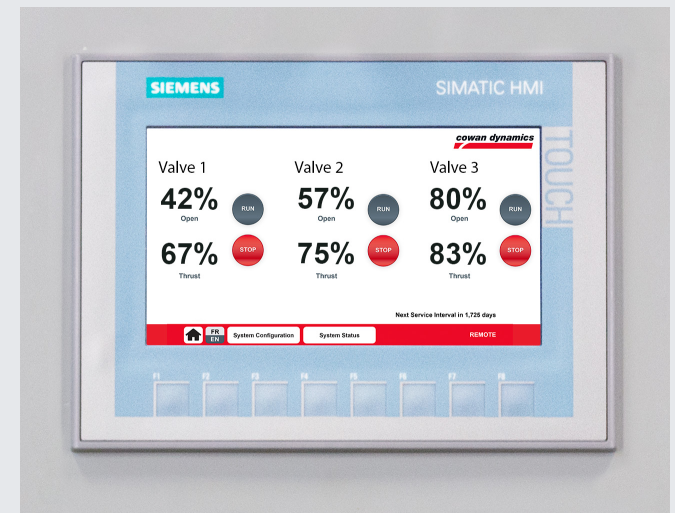
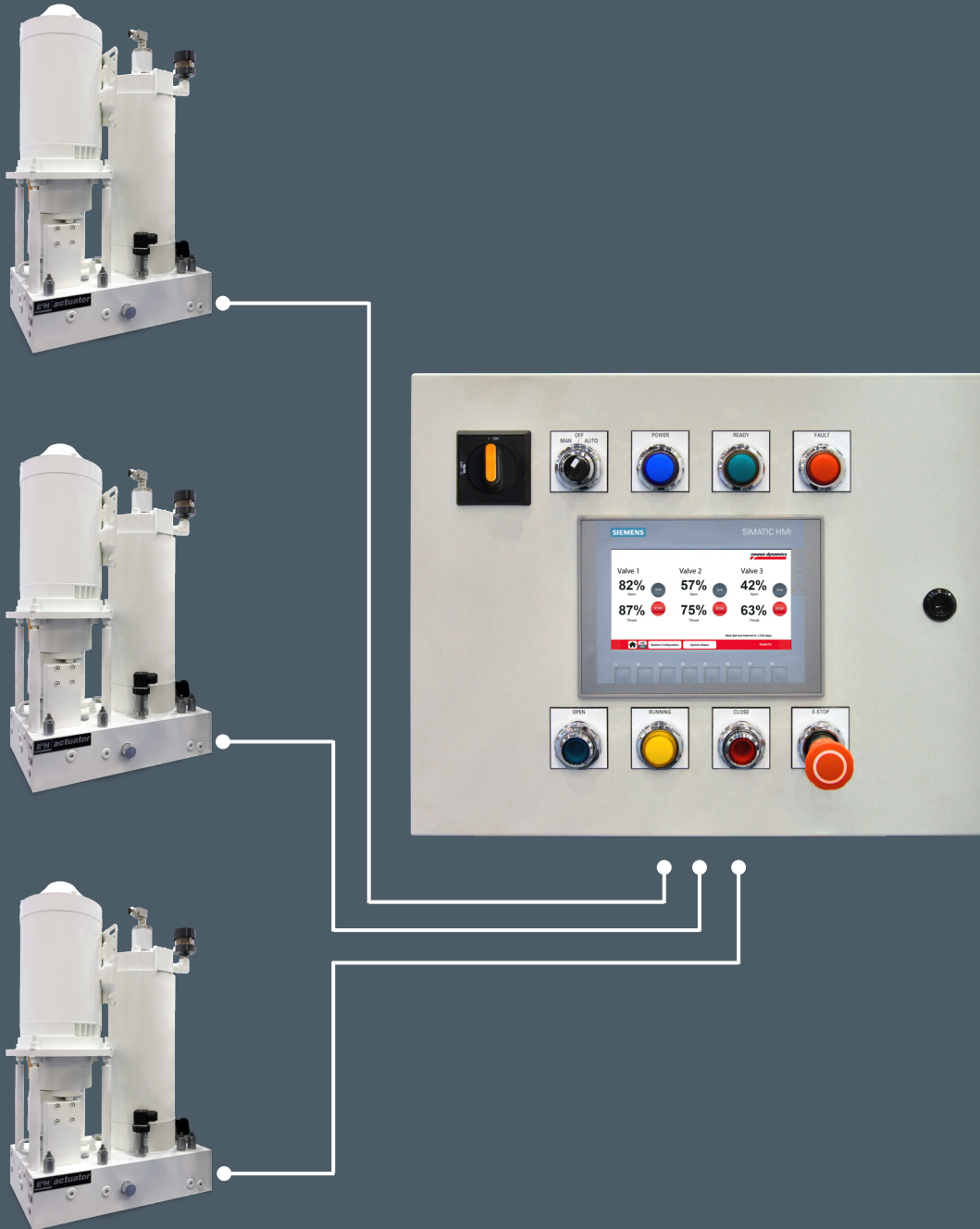
Partial Stroke Test: Initiate PST from touch screen or remotely.

Versatile: Can be mounted in horizontal valve stem applications.

Remote Diagnostics and Trouble-Shooting by Cowan*
(*direct VPN connection required)

Operate Your E²HR Remotely Using Our Remote Panel Option

- The control panel can be mounted remotely and control multiple valves.
- It's ideal for hazardous area locations.
- It gives you the flexibility to mount the control panel in a safe zone thereby providing a significant cost saving.
- Access valve performance data for multiple valves from one control panel.
- Designed to suit your installation.



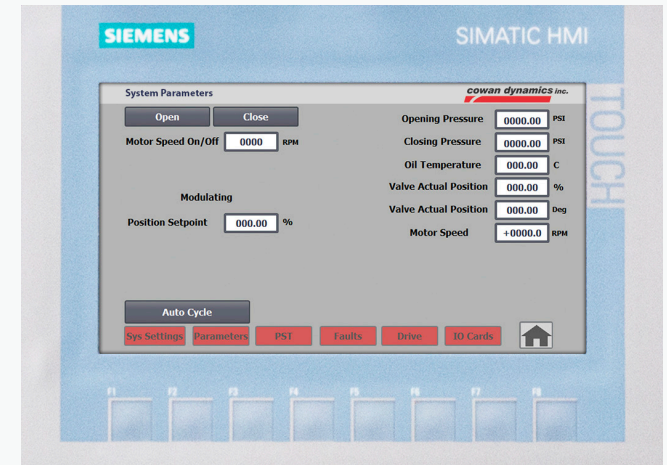
E²HR PANEL Design



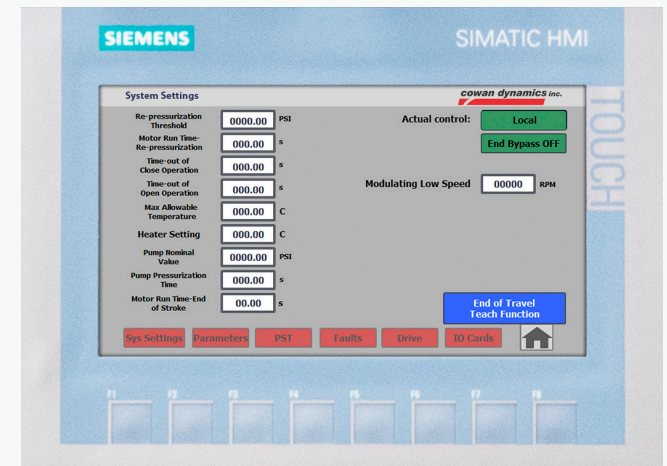
Main Panel: The E²HR control panel comes standard with a touch screen* for quick setup and easy operation. The panel can be mounted remotely or on your E²HR.

In addition, you can operate your E²HR locally using the physical buttons on the front of the panel.

*Touch Screen not available for low temperature applications



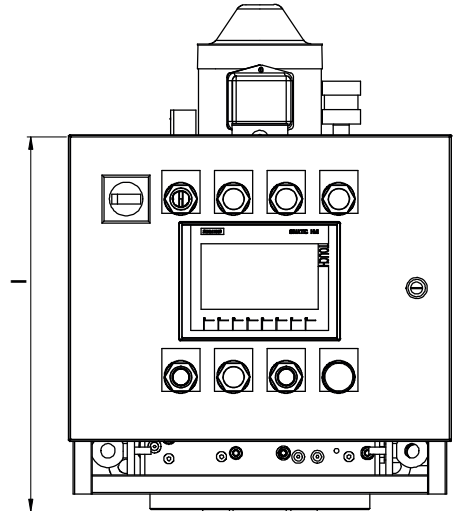
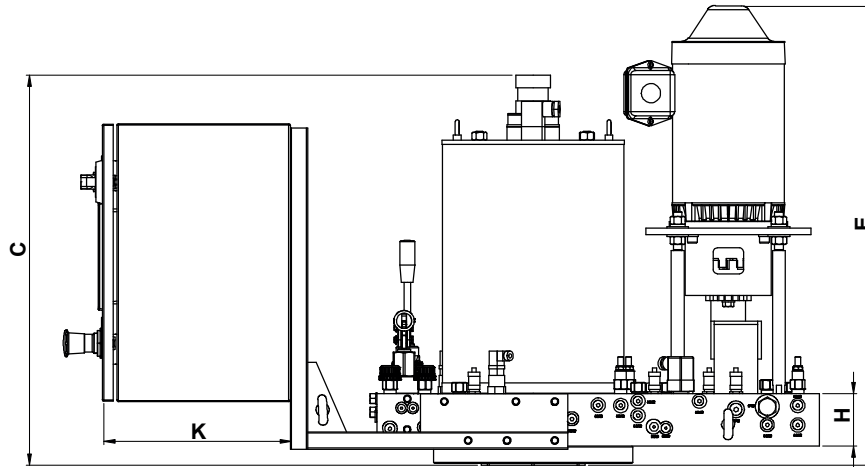
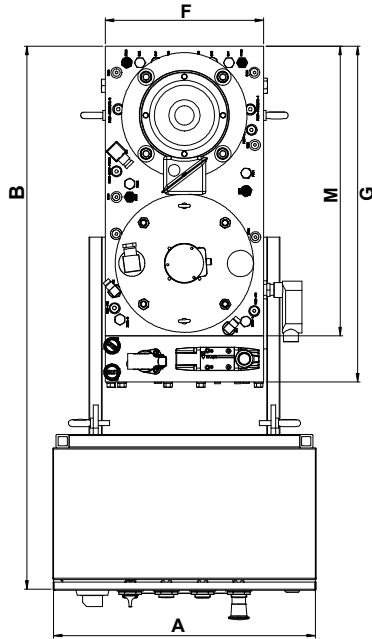
Status Screen: The E²HR status screen gives you a quick overview of your system status. Available from the touch screen* or via Wi-Fi.



Remote Screen: Operate your E²HR remotely using one of the communication protocols below.



Dimensions



Series	Motor (HP)	B	F	M	G (If MO Required)	A	C	K	H	E	I	Weight (lbs)	MO Weight (lbs)	Max Torque (in.lbs)	Open/Close Time (Sec)
E2HR-1	3	41	14	26	29.5	27.5	23	11	3.5	28	27	415	16	10,940	2 to 5
	1	37	12	22	25.5	27.5	23	11	3.5	26	27	360	16		24 to 75
E2HR-2	15	48	20	33	36.5	31.5	30.15	11	4.5	42.1	29.5	2000	32	100,000	4 to 18
	3	48	20	33	36.5	27.5	30.15	11	4.5	29	27.5	1750	32		16 to 72
E2HR-3	15	57	28	42	45.5	31.5	41.57	11	4.5	42.1	29.5	2700	50	300,000	10 to 44
	5	57	28	42	45.5	31.5	41.57	11	4.5	36.3	27.5	2500	50		25 to 114



Specifications

Voltage		
Standard	240V Single Phase	50/60Hz
Optional	115V Single Phase	50/60Hz
Optional	575V 3 Phase	50/60Hz
Optional	460V 3 Phase	50/60Hz

Environmental		
Standard	Nema 4	IP65
Optional	Nema 4X	IP67
Optional	Nema 7	
Optional	CSA approved CI 1, Div 2, grps A, B, C, & D (OPT) CSA approved CI 1, Div 1, grps C, & D (OPT) /ATEX, II 3G EEx nA II T3 -40°C ≤ Ta ≤ 65°C / ATEX, II 2G EEx 'd' iiB, T3 -40°C ≤ Tamb ≤ 65°C	

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Electro-hydraulic Actuator Configurator

1 2 3

Select Valve Operation

Rotary Valve Linear Valve

Rotary Valve Types

Butterfly Valve Plug Valve Ball Valve

Valve Type Not Shown

Next

cowan dynamics Electro-Hydraulic actuator Data Sheet - Rotary E2H-R

Customer Selection

Valve Type	Rotary, quarter turn
Application	Emergency Shutdown Valve (ESD)
Fail Action	Closed
Size (in)	8
Max Torque (Lb-Ft)	10,940

Butterfly Valve Plug Valve Ball Valve

E²H actuator

Service	Emergency Shutdown Valve (ESD)
Design	Double acting
Fail system	Hydraulic Accumulators
Motor	Reverse duty
Voltages	200-240 Vac/1 Phase/3 Phase 380-480 Vac/3 Phase 500-690 Vac/3 Phase & Custom
Control panel	Integral or remote with touch screen HMI
Ambient temperature	(200 to 400, Standard) (+ 55C and -50C, Options)
Protection	Nema 4/Nema 4X/IP67
Classification for hazardous areas	CSA Cl 1, Div. 2, grps A, B, C and D CSA Cl 1, Div. 1, grps C and D ATEX, II 3G EEx nA II T3 -40C ≤ Ta ≤ 65C ATEX, II 3G EEx nA II T3 -40C ≤ Ta ≤ 65C Tamb ≤ 65C HART, PROFIBUS, PROFISAFE, PROFISUB and digital (options)
Communication	Schedule operating speeds Program actuator thrust limits Program partial stroke test (PST) Data logging
Service	100% service cycle
Power consumption	Only under operation
Movement Lock	Complete after each operation
Resolution	0.01% of travel
Response	As low as 50 ms
Manual override	Manual hydraulic pump
Speed (optional)	1.20 to 45, Adjustable Variable Speed Motor
Mounting	Horizontal or vertical (ISO, MSS, Custom)

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Marketing and Sales Office: Montreal, Quebec, T: 514 341 3415

Marketing and Sales Office: Brisbane, Australia, T: 514 583 2328

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Configure Your Electro-hydraulic Actuator Online

Easily generate a custom datasheet on our website by visiting:

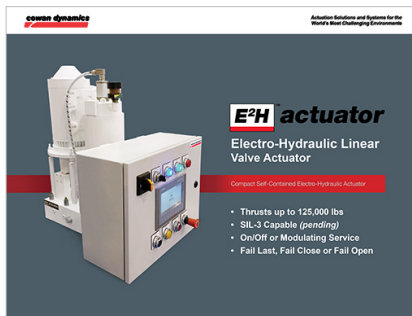
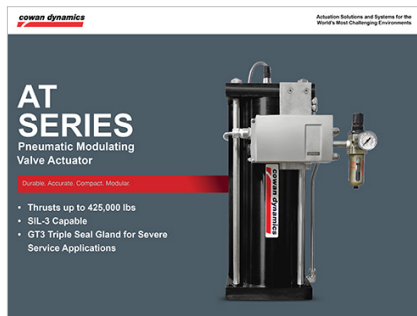
<https://www.cowandynamics.com/product/electro-hydraulic-actuator-configurator/>

What you can do:

- Select your valve type
- Select valve size
- Select application type:
 - Control: modulation continuous duty
 - Isolation: on/off
 - Emergency Shutdown Valve (ESD)
- Select Torque or required BTO / ETC
- Select fail-mode options:
 - Fail-open
 - Fail-close
 - Fail-last Lock

Related materials

Visit our website to download or request a printed catalogue.



Solutions Include:

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